

## REMARKS

This application contains claims 1-54.

The Examiner's requirement for deletion of embedded hyperlinks is respectfully traversed. Reference is made to the on-line text dated May 2004 Rev. 2 of MPEP §608.01, at page 600-63, left hand column, paragraph at the middle of the column (copy of that page attached). It is stated that:

"Where the hyperlinks and/or other forms of browser-executable code themselves rather than the contents of the site to which the hyperlinks are directed are part of applicant's invention and it is necessary to have them included in the patent application in order to comply with the requirements of 35 U.S.C. 112, first paragraph, and applicant does not intend to have the hyperlinks be active links, examiners should not object to these hyperlinks. The office will disable these hyperlinks when preparing the text to be loaded on to the USPTO web database."

This is exactly the case here. In fact the hyperlinks that the Examiner has objected to are merely exemplary, provided for purposes of illustrating the general way in which such hyperlinks might be written, and do not in any way represent active Web sites. The applicant does not intend to or wish to have these hyperlinks be active in any way. In view of Examiner Note 4 at the very and of the cited MPEP section (in the right-hand column of the attached page) of the MPEP, it is clear that this objection should be withdrawn. Thus, it is respectfully requested that the Examiner withdraw the requirement to delete the hyperlinks.

Claims 1-3, 7, 11-12 and 20 were rejected as being obvious over Smith, in view of what would have been obvious (within the scope of knowledge of an ordinary artisan) at the time the invention was made. Claims 4-6, 8-10, 13, 14, 17-19, and 21-34 were rejected as being obvious over Smith, in view of what would have been obvious (within the scope of knowledge of an ordinary artisan) at the time the invention was made, further in view of Barry. Claims 15, 16 and 35-54 were rejected as being obvious over Smith, in view of what would have been obvious (within the scope of knowledge of an ordinary artisan) at the time the invention was made, further in view of Barry, in further view of Swildens et al. These rejections are traversed.

First, Applicants object to the rejection under the provisions of MPEP §2144.04C (See on-line text dated May 2004 Rev. 2 of MPEP §2144.04, at page 2100-683, left hand column, (copy of that page attached), as not properly based on common knowledge. In formulating these new rejections, the Examiner, for the first time tries to rely on what would have been obvious (within the scope of knowledge of an ordinary artisan) at the time the invention was made. However, the Examiner has provided no evidence that at the time the invention was made the claimed subject matter would have been obvious. It is respectfully submitted that the Examiner is using hindsight and attributing to the prior art something the Examiner has not established was in fact practiced at the time the invention was made. Specifically, in the rejections, the Examiner has failed to provide any evidence that at the time the invention was made, redirecting to one server of a plurality of proxy

servers at locations distributed throughout the network, at least one service request received from a client for said at least one application (claims 1 and 21), was practiced; a wide area load balancer for distributing at least one request from at least one client to a particular proxy server from among a plurality of proxy servers distributed throughout the network, (claim 15) was used; or apparatus which meet: a first set of programs used in said at least one application, a second set of programs retrieved from a back-end server and executed locally to satisfy part of at least one request received from a client were available (claims 17 and 18).

Second, in accordance with MPEP §2144.04C Applicants respectfully demand that the Examiner provide appropriate evidence of what is alleged to be what would have been obvious (within the scope of knowledge of an ordinary artisan) at the time the invention was made. If the Examiner cannot provide such evidence, it is respectfully submitted that the Examiner must allow the application, and such allowance is respectfully requested.

It is noted that this is not a merely a formal demand, but has practical significance. If the Examiner does cite a reference, then it will have an effective date. Without such date, the Applicants can make no determination as to whether their invention was before or after such date.

It is also noted that regardless of the state of knowledge (not established by the Examiner), Applicants' invention has marked advantages over the prior art for enhancing the efficiency of transactions over networks, and specifically of Internet transactions. Applicants'

invention, as set forth in claim 1, is directed to a method distributing at least one application in a communication network. The method comprises redirecting to one server of a plurality of proxy servers at locations distributed throughout the network, at least one service request received from a client for said at least one application; determining a set of programs required at said one server to fulfil said request for said at least one application; and executing said set of programs.

Thus, Applicants' invention, as set forth in claim 1, provides the advantage of distributing an application that may be requested by client to a plurality of proxy servers located throughout the network. A set of programs required to fulfil the application is determined. The set of programs is then executed.

Applicants' invention, as set forth in claim 1, has the advantage of the programs being executed at any one of the plurality of servers. Advantageously, the proxy server executing the application may be positioned so as to greatly decreased latency time for the application to provide the service desired by the client. Art of record does not teach or suggest such an advantageous arrangement. In Smith, all the proxy servers tend to be in close proximity to one another. The art of record does not teach or suggest that the proxy servers may be distributed throughout the network so that one that is particularly convenient to the client in terms of assuring prompt service, is used to service that client. In view of the

above, it is respectfully submitted that claim 1 is directed to patentable subject matter.

Independent apparatus claim 15 and independent method claim 21 previously were amended in a manner analogous to the amendment to claim 1. For the reasons set forth above with respect to claim 1, it is respectfully submitted that claims 15 and 21 are also directed to patentable subject matter.

Claim 35, which depends from claim 1, recites the further step of selecting the one server to be closer to a client requesting a service provided by the application, than other of the plurality of proxy servers. Claim 35, and analogous claims 40 and 45, which depend from independent claims 15 and 21, respectively, specifically provide the advantage of reduced latency, as noted above with respect to claim 1. Thus, it is respectfully submitted that claims 35, 40 and 45 are directed to patentable subject matter.

Claim 36, which depends from claim 1, recites the further step of providing administrative control of the application with a backend server, and selecting the one server to be closer to a client requesting a service provided by the application than the backend server. Thus even though the backend server may be located at a greater distance from the client, since it is providing administrative control, while the bulk of the application programs are run on a closer processor, latency performance is not degraded. Thus it is submitted that claim 36, and

analogous claims 41 and 46, which depend from independent claims 15 and 21 respectively, are also directed to patentable subject matter.

Claim 37, depends from claim 1 and recites that the method further comprising storing at least a portion of the programs on each of the proxy servers. This provides excellent latency performance. It is counter-intuitive with respect to what is taught in Smith (thus Smith teaches away from the invention), when Smith suggested that such duplicate storage represents undue system overhead (Smith, column 1, lines 25-29). Thus, it is submitted that claim 37, and analogous claims 42 and 47, which depend from independent claims 15 and 21 respectively, are also directed to patentable subject matter.

Claim 38, which depends from claim 1, recites providing a backend server in communication with each of said proxy servers for administrative control of each of said proxy servers. The advantages of this approach are set forth above with respect to claim 36. It is also noted that in accordance with claim 38, administrative control thus need not be duplicated at each of the proxy servers. Thus, it is submitted that claim 38, and analogous claims 43 and 48, which depend from independent claims 15 and 21 respectively, are also directed to patentable subject matter.

Claim 39, which depends from claim 1, recites providing a backend server in communication with the client for providing services for portions of the application that

are not readily distributable to the proxy servers. Thus, the application is advantageously split between those provided by the proxy with low latency, and those provided by the backend server, possibly with higher latency. This approach tends to optimize system performance, while minimizing overhead. It is submitted that claim 39, and analogous claims 44 and 49, which depend from independent claims 15 and 21 respectively, are also directed to patentable subject matter.

Independent claim 17 was previously amended to recite a plurality of proxy servers each having a first set of programs used in said at least one application and a second set of programs retrieved from a backend server and executed locally to satisfy part of at least one request received from a client. Thus, Applicants' invention, as set forth in claim 17, advantageously has portions of the application on each of the proxy servers distributed throughout the network, and retrieves the other portions when necessary from the backend server. These elements, in combination with the other elements of claim 17, are not rendered obvious by any combination of Smith and Barry. As noted above, Smith specifically teaches away from duplication on a servers because of the additional incurred overhead. In view of the above, it is respectfully submitted that claim 17 is directed to patentable subject matter.

In a similar manner, claim 18 was amended to recite a first set of programs used for at least one application and distributed to a plurality of proxy servers within the

network, and a second set of programs used for said at least one application and executed locally by the backend server. Claim 18 is not rendered obvious by the art of record. It is therefore respectfully submitted that claim 18 is also directed to patentable subject matter.

Claims 50 -53 (which depend ultimately from claim 10), and claim 54 (which depends from claim 28) are directed to the structure of the proxylet-record. It is submitted that the prior art does not teach or suggest such a structure.

The remaining claims depend from one of the independent claims discussed above. These claims recite further elements, which in combination with the elements from which they depend, are not disclosed or suggested in the art of record. For the reasons set forth above with respect to the independent claim from which they depend, it is submitted that these claims are also directed to patentable subject matter.

The Examiner is invited to contact the undersigned to resolve any remaining issues. Allowance of this application is requested.

A check for \$110 to cover a one-month extension of time is enclosed herewith.

Respectfully submitted,

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8/19/04  
Date

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## PARTS, FORM, AND CONTENT OF APPLICATION

608.01(a)

site. USPTO policy does not permit the USPTO to link to any commercial sites since the USPTO exercises no control over the organization, views or accuracy of the information contained on these outside sites.

If hyperlinks and/or other forms of browser-executable code are embedded in the text of the patent application, examiners should object to the specification and indicate to applicants that the embedded hyperlinks and/or other forms of browser-executable code are impermissible and require deletion. This requirement does not apply to electronic documents listed on forms PTO-892 and \*PTO/SB/08< where the electronic document is identified by reference to a URL.

The attempt to incorporate subject matter into the patent application by reference to a hyperlink and/or other forms of browser-executable code is considered to be an improper incorporation by reference. See MPEP § 608.01(p), paragraph I regarding incorporation by reference. Where the hyperlinks and/or other forms of browser-executable codes >themselves rather than the contents of the site to which the hyperlinks are directed< are part of applicant's invention and it is necessary to have them included in the patent application in order to comply with the requirements of 35 U.S.C. 112, first paragraph, and applicant does not intend to have these hyperlinks be active links, examiners should not object to these hyperlinks. The Office will disable these hyperlinks when preparing the text to be loaded onto the USPTO web database.

Note that nucleotide and/or amino acid sequence data placed between the symbols "< >" are not considered to be hyperlinks and/or browser-executable code and therefore should not be objected to as being an improper incorporation by reference (see 37 CFR 1.821 - 1.825).

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### ¶ 7.29.04 Disclosure Objected To, Embedded Hyperlinks or Other Forms of Browser-Executable Code

The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

#### Examiner Note:

1. Examples of a hyperlink or a browser-executable code are a URL placed between these symbols "< >" and http:// followed by a URL address. Nucleotide and/or amino acid sequence data placed

between the symbols "< >" are not considered to be hyperlinks and/or browser-executable code.

2. If the application attempts to incorporate essential or nonessential subject matter into the patent application by reference to the contents of the site to which a hyperlink and/or other form of browser-executable code is directed, use form paragraph 6.19 or 6.19.01 instead. See also MPEP § 608.01(p).

3. The requirement to delete an embedded hyperlink or other form of browser-executable code does not apply to electronic documents listed on forms PTO-892 and PTO-1449 where the electronic document is identified by reference to a URL.

4. Examiners should not object to hyperlinks where the hyperlinks and/or browser-executable codes themselves (rather than the contents of the site to which the hyperlinks are directed) are necessary to be included in the patent application in order to meet the requirements of 35 U.S.C. 112, first paragraph, and applicant does not intend to have those hyperlinks be active links.

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## 608.01(a) Arrangement of Application [R-2]

### 37 CFR 1.77. Arrangement of application elements.

(a) The elements of the application, if applicable, should appear in the following order:

- (1) Utility application transmittal form.
- (2) Fee transmittal form.
- (3) Application data sheet (see § 1.76).
- (4) Specification.
- (5) Drawings.
- (6) Executed oath or declaration.

(b) The specification should include the following sections in order:

(1) Title of the invention, which may be accompanied by an introductory portion stating the name, citizenship, and residence of the applicant (unless included in the application data sheet).

(2) Cross-reference to related applications (unless included in the application data sheet).

(3) Statement regarding federally sponsored research or development.

(4) Reference to a "Sequence Listing," a table, or a computer program listing appendix submitted on a compact disc and an incorporation-by-reference of the material on the compact disc (see § 1.52(e)(5)). The total number of compact discs including duplicates and the files on each compact disc shall be specified.

(5) Background of the invention.

(6) Brief summary of the invention.

(7) Brief description of the several views of the drawing.

(8) Detailed description of the invention.

(9) A claim or claims.

(10) Abstract of the disclosure.

(11) "Sequence Listing," if on paper (see §§ 1.821 through 1.825).

**C. *If Applicant Challenges a Factual Assertion as Not Properly Officially Noticed or not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding With Adequate Evidence***

To adequately traverse such a finding, an applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art. See 37 CFR 1.111(b). See also *Chevenard*, 139 F.2d at 713, 60 USPQ at 241 ("[I]n the absence of any demand by appellant for the examiner to produce authority for his statement, we will not consider this contention."). A general allegation that the claims define a patentable invention without any reference to the examiner's assertion of official notice would be inadequate. If applicant adequately traverses the examiner's assertion of official notice, the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained. See 37 CFR 1.104(c)(2). See also *Zurko*, 258 F.3d at 1386, 59 USPQ2d at 1697 ("[T]he Board [or examiner] must point to some concrete evidence in the record in support of these findings" to satisfy the substantial evidence test). If the examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding. See 37 CFR 1.104(d)(2).

If applicant does not traverse the examiner's assertion of official notice or applicant's traverse is not adequate, the examiner should clearly indicate in the next Office action that the common knowledge or well-known in the art statement is taken to be admitted prior art because applicant either failed to traverse the examiner's assertion of official notice or that the traverse was inadequate. If the traverse was inadequate, the examiner should include an explanation as to why it was inadequate.

**D. *Determine Whether the Next Office Action Should Be Made Final***

If the examiner adds a reference in the next Office action after applicant's rebuttal, and the newly added reference is added only as directly corresponding evidence to support the prior common knowledge finding, and it does not result in a new issue or constitute a

new ground of rejection, the Office action may be made final. If no amendments are made to the claims, the examiner must not rely on any other teachings in the reference if the rejection is made final. If the newly cited reference is added for reasons other than to support the prior common knowledge statement and a new ground of rejection is introduced by the examiner that is not necessitated by applicant's amendment of the claims, the rejection may not be made final. See MPEP § 706.07(a).

**E. *Summary***

Any rejection based on assertions that a fact is well-known or is common knowledge in the art without documentary evidence to support the examiner's conclusion should be judiciously applied. Furthermore, as noted by the court in *Ahlert*, any facts so noticed should be of notorious character and serve only to "fill in the gaps" in an insubstantial manner which might exist in the evidentiary showing made by the examiner to support a particular ground for rejection. It is never appropriate to rely solely on common knowledge in the art without evidentiary support in the record as the principal evidence upon which a rejection was based. See *Zurko*, 258 F.3d at 1386, 59 USPQ2d at 1697; *Ahlert*, 424 F.2d at 1092, 165 USPQ 421.<

**2144.04 Legal Precedent as Source of Supporting Rationale [R-1]**

As discussed in MPEP § 2144, if the facts in a prior legal decision are sufficiently similar to those in an application under examination, the examiner may use the rationale used by the court. Examples directed to various common practices which the court has held normally require only ordinary skill in the art and hence are considered routine expedients are discussed below. If the applicant has demonstrated the criticality of a specific limitation, it would not be appropriate to rely solely on case law as the rationale to support an obviousness rejection.

**I. AESTHETIC DESIGN CHANGES**

*In re Seid*, 161 F.2d 229, 73 USPQ 431 (CCPA 1947) (Claim was directed to an advertising display device comprising a bottle and a hollow member in the shape of a human figure from the waist up which